

CHAPTER III

RESEARCH METHOD

This chapter discusses the research method. It covers research design, research subject, data collection, and data analysis. Each section will be explained below.

3.1 Research Design

Quantitative research is a research that uses statistics and the data obtained can be represented if the research is applied directly (Al-Sabbah, 2015). The research of the study is quantitative research by using Classroom Action Research. It is looking for information about the problem that is happening, has a clear goal to be achieved, planning the approach and also collect the data as material to make a report. This research is conducted to find out or measure how much the use of nursery rhymes can increase students' vocabulary in English young learners. In this research, the researcher use Classroom Action Research (CAR) design conducted by the teacher in the class.

Classroom Action Research (CAR) is a research aimed to improve the quality of learning practice that focuses on the process of teaching and learning in the class. Classroom Action Research (CAR) defined as one of the problem-solving strategies that utilize concrete actions and capacity building processes in detecting and resolving problems (Narmaditya et al., 2017).

This action research tries to identify the problem that happened in teaching and learning process and decides to solve the problem. There are four phases that should be conducted in Classroom Action Research (CAR) such as planning,

action, observation, and reflection. The four phases were done in two cycles and each cycle consist of four stages.

The basic conceptual of Classroom Action Research (CAR) includes four stages (Narmaditya et al., 2017), the four stages are:

1. Planning

Planning is the first step that is used to prepare learning strategies in the classroom and will be developed through research in order to solve the problems. The chosen of learning strategy is a strategy that becomes the focus on the study, to be prepared, to be tried out, to be revised, and to be tried again until it proves effective to solve the problems.

2. Acting

Acting is the second step to implement the instructional strategy that has been planned. At this stages, the researcher has mastered on nursery rhymes before starting the implementation in the class and trying out the strategy to test how much it can solve the classroom's problems.

3. Observing

Observing is the process of collecting the data indicating the success of the strategy in solving the classroom's problems. The observation is focused on the data that related to the criteria of success that have been decided.

4. Reflecting

Reflecting is a process of analyzing the data to determine how far the data collected have shown the success of the strategy in solving the problems. The reflecting also shows what factors that support the success of the strategy or what other problems may occur during the implementation process.

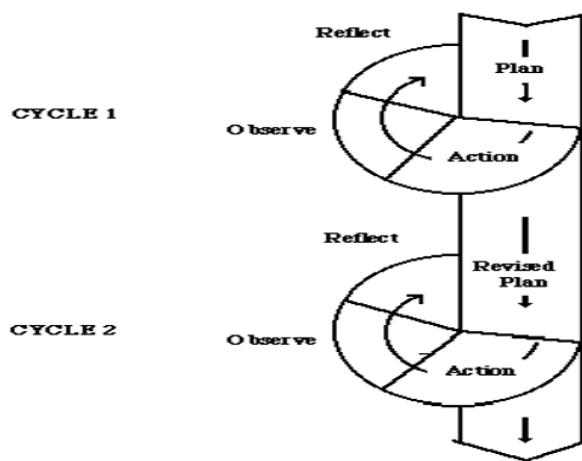


Figure 1: Kemmis and Mc Taggart's Action Research Design

Figure 1 shows that the cycle of the Classroom Action Research (CAR) consist of four stages (planning, acting, observing, and reflecting). If the first cycle failed, the researcher should continue to the next cycle by revising the weakness in order to get the results that match with the criteria to be achieved.

3.1.1 Cycle I

In the Classroom Action Research (CAR) there are four stages, such as:

a. Planning

The researcher preparing a lesson plan as the guidelines for conducting the teaching learning activity, determining teaching material and media such as using nursery rhymes, and preparing research instruments such as observation, test (pre-test and post-test), and documentation (picture during the teaching learning process). The researcher to do the research to find out there is improvement or not in the students' vocabulary mastery and to know the responses of students during the teaching and learning process.

b. Acting

In this step, the researcher implementing nursery rhymes also identify the problems that happened in the class during the teaching learning process. There are several learning activities conducted by researcher in the class, such as pre-teaching, whilst-teaching, and post-teaching.

c. Observing

The researcher do the observation directly to know there is improvement in students' vocabulary or not. The researcher do the calculation for the questions' sheet to find out whether the questions that to be tested is valid and reliable or not before give it to the students.

d. Reflecting

Researcher do the reflecting to know what happened in the action and to know whether the objectives are achieved or not. The researcher also look for the solutions to overcome the deficiencies that exist in the learning process.

3.1.2 Cycle II

In the cycle II, the researcher also do the four stages such as planning, acting, observing, and reflecting. The planning in cycle II almost the same with the planning in cycle I. The researcher also do the acting into several learning activities such as pre-teaching, whilst-teaching, and post-teaching. Then, researcher do the direct observation to find out the improvement of the students' knowledge of vocabulary during the teaching learning process. In this cycle II, the reflecting almost the same with the reflecting in cycle I that to know the action in the class and to find out whether the objectives are achieved or not.

3.2 Population and Sample

Population and sample are part of research that plays an important role to get the data collection in a research. To make it clear, the researcher will explain it below.

3.2.1 Population

Population is a group of people with specific set of characteristics (Banerjee & Chaundhury, 2010). The population of this research are the students at the third grade of English Young Learners (EYL) program at University of Muhammadiyah Malang. The participants of the class are 20 students.

3.2.2 Sample

Sample is a group that selected from a population to do the observation in research study (Ary et al., 2010). The researcher takes a class to be a sample and use the cluster sampling. Cluster sampling is the technique that used when the population does not consists of individuals, but consist of individual groups. In this research, the sample are 20 students at the third grade of English Young Learners (EYL) program at University of Muhammadiyah Malang. The researcher chooses this class as the object of research because two subjects matter in the third grade of thematic textbooks such as save the energy (energy saver song and let's save the energy) and objects around me (school supplies song) are related to the nursery rhymes that will the researcher uses to improve students' vocabulary.

3.3 Data Collection

In this point, the researcher discusses about the data collection that includes the instrument and procedure of data collection. The researcher uses three instruments that include a test, observation, and documentation.

1. Test (pre-test and post-test)

Test is used for getting the data of the research result and students' activities in teaching learning. The test of vocabulary mastery is intended to collect the data about students' vocabulary mastery. There are two types of test, pre-test and post-test. Pre-test is a preliminary test to determine students' knowledge or preparedness for an educational experience of study. Post-test is a test that given to students after completion of an instructional program or segment and often used in conjunction with a pre-test to measure their achievement and the effectiveness of the study.

To make it more valid, in the test should have a validity test and reliability test. In quantitative research, validity is defined as the extent to which an instrument measures (Mohajan, 2017). Reliability refers to a measurement that has consistent results with the equal values (Mohajan, 2017). The foundation of good research is using validity and reliability test to measure the data to make a good decisions. Therefore, the researcher analyze the questions sheet of the test using Statistical Package for Sosial Science (SPSS) to find out whether the test is valid and reliable or not.

2. Observation

The second instrument is observation. Observation is a technique for collecting the data about researcher and students' activities in teaching and learning process. The purpose of using observation is to find out the overall condition occurs during the instruction. The type of observation that is used in this research is direct observation.

3. Documentation

Documentation used to show the activities of the students during the teaching and learning process by using photo. The researcher do the documentation using photo to show the situation in the class during the teaching and learning process.

3.4 Data Analysis

After all the data was collected, the next step was data analysis, where the collected data were analyzed to derive a reliable conclusion. The quantitative data was analyzed to find out the improvement of students' vocabulary. In analyzing the data, the researcher through the following steps:

1) Calculate the students' score per person of pre-test and post-test. The formula as follow:

$$\text{Score} = \frac{\text{students correct answer}}{\text{Total number of items}} \times 100$$

2) The mean of the students' score for each cycle was obtained by using Arithmetic Mean formula by Gay in (Nurhudayah, 2018) as follow:

$$X = \frac{\sum x}{N} \times 100\%$$

X = the mean of students' score

$\sum x$ = the total score

N = the number of students

3) The formula used in calculating percentage in students' score as follow:

$$P = \frac{F}{N} \times 100\%$$

P = rate percentage

F = frequency of the correct answer

N = the total number of students

4) The rubric score used in classifying students' score is:

Score Level	Grade
80,0 – 100	A
75,0 – 79,9	B+
70,0 – 74,9	B
60,0 – 69,9	C+
55,0 – 59,9	C
40,0 – 54,9	D
0 – 39,9	E